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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,901	10/10/2001	Robert V. Belenger	77700	6877
7	590 06/17/2003			
Office Of Counsel			EXAMINER	
Naval Undersea Warfare Center Division			VORTMAN, ANATOLY	
Bldg 112T				
1176 Howell S	traat			
			ART UNIT	PAPER NUMBER
Newport, RI (	12841-1708		L	
			2835	
			DATE MAILED: 06/17/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

	1/\				
09/977,901 BELENGER ET AL.					
Offic Acti n Summary Examiner Art Unit					
Anatoly Vortman 2835					
The MAILING DATE of this communication appears on the cover sheet with the correspondence address P riod for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status					
1)⊠ Responsive to communication(s) filed on <u>02 May 2003</u> .					
2a)⊠ This action is <b>FINAL</b> . 2b)□ This action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims					
4)⊠ Claim(s) <u>1-14</u> is/are pending in the application.					
4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) <u>8-13</u> is/are allowed.					
6)⊠ Claim(s) <u>1-7 and 14</u> is/are rejected.					
7) Claim(s) is/are objected to.					
8) Claim(s) are subject to restriction and/or election requirement.					
Application Papers					
9) The specification is objected to by the Examiner.					
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
11)⊠ The proposed drawing correction filed on <u>02 May 2003</u> is: a)⊠ approved b)⊡ disapproved by the Examiner.					
If approved, corrected drawings are required in reply to this Office action.					
12) The oath or declaration is objected to by the Examiner.					
Priority under 35 U.S.C. §§ 119 and 120					
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).					
a) ☐ All b) ☐ Some * c) ☐ None of:					
1. Certified copies of the priority documents have been received.					
2. Certified copies of the priority documents have been received in Application No					
<ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>					
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).					
a) ☐ The translation of the foreign language provisional application has been received.  15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.					
Attachment(s)					
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)					

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### **DETAILED ACTION**

#### Amendments

1. By amendment filed on 05/02/03 claims 7-10 have been amended and new claims 11-14 have been added. Thus, claims 1-14 are pending in the instant application.

# Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 1-5, are rejected under 35 U.S.C. 102(b) as being anticipated by US/4, 635,021 to Hsieh.

Regarding claims 1, 2, and 14, Hsieh disclosed (Fig. 2) a device for interrupting a load circuit and indicating a current overload condition comprising: first (12) and a second (12') electrodes being coupled to a load circuit, said load circuit having a source of electrical power (inherently) to connect current to a load; a light emitter circuit (3, 4) having an indicator lamp (3) serially connected to a current limiting resistor (4), said light emitter circuit being connected to said first electrode (12); and a multi-metallic rectangular tongue-shaped heat reactive strip (13) connected to said first and second electrodes (12, 12') having a first shape to close said load circuit, and said heat reactive strip being heated by overload current, said overload current

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creating the only forces to snap into a second shape to open said load circuit and close said light emitter circuit (via contact (2); column 2, lines 48-58), said indicator lamp (3) of said light emitter circuit radiating light to visually indicate said current exceeding a predetermined overload magnitude and said open load circuit.

Regarding claims 3 and 4, Hsieh disclosed means (14) for manually resetting said heat reactive strip (13) back from said second shape to said first shape.

Regarding claim 5, Hsieh disclosed a housing (1) having said first and second electrodes (12, 12') extending from its bottom and said manually resetting means (14) and said indicator lamp (3) extending from its top surface, (Fig. 2).

# Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsieh ('021) in view of US/5,995,380 to Maue et al., (Maue).

Regarding claims 6 and 7, Hsieh disclosed all of the claims limitations as apply to claim 5, and further that a push button resetting means (14) is extending through the housing (1), wherein said push button (14) pushes against said heat reactive strip (13) to reset it to said first shape after cooling, and (as shown on Fig. 3) that electrodes (71, 71') of the load circuit are

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inserted into sockets (121, 121') of the device housing (1), but not the opposite, i.e., that electrodes of the device are inserted into the sockets of the load circuit, as claimed in claim 6.

Maue disclosed (Fig. 2) an electrical junction box for automobiles, wherein protective devices (17) and electrical components (19) comprising electrodes, which are inserted into the sockets of a circuit.

Since inventions of Hsieh and of Maue are from the same field of endeavor (plugable electrical components), the purpose of the devices having electrodes that are inserted into the sockets of the circuit disclosed by Maue would be recognized for the invention of Hsieh.

It would have been obvious to a person of ordinary skill in the plugable electrical devices art at the time the invention was made to reverse said electrodes and sockets in the device of Hsieh (i.e. to provide electrodes for the device (1) and sockets for the load circuit (7)) in order to enhance electrical safety of the device of Hsieh (i.e. to eliminate the exposure of the energized electrodes (71)).

Alternatively, it would have been obvious to one having ordinary skill in the plugable electrical devices art at the time the invention was made to reverse said electrodes and sockets in the device of Hsieh (i.e. provide electrodes for the device (1) and sockets for the load circuit (7)), since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

# Allowable Subject Matter

6. Claims 8-13 are allowed.

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7. The following is a statement of reasons for the indication of allowable subject matter: claims 8-13 are allowable, at least in part, because independent claims 8 and 11 recite limitations: "dome shape(d)" and "inverted dome shape(d)". The aforementioned limitations in combination with remaining limitations of claims 8 and 11 are believed to render said independent claims 8 and 11 and all of the dependent claims patentable over the art of record.

## Response to Arguments

8. Applicant's arguments filed on 05/02/03 have been fully considered but they are not persuasive.

Regarding claims 1-5, contrary to the Applicant's assertion that since in the Hsieh ('021) reference the overload current is not solely responsible for snapping of the strip (13) from one position to another, claim 1 is patentable over Hsieh reference, the Examiner would like to direct the Applicant's attention to the fact that claim 1 recites only that: "overload current creating the only forces to snap into a second shape", i.e. that overload current does not create any other forces in said strip (13), but only those forces which would warrant the snapping of the strip. In Hsieh device the overload current likewise creates the only forces in the strip (13), which would bend an L-shaped extension (131) away from a contact plate (15) so as to unlatch a latch (132) from a contact plate (15) and to allow the strip (13) to move from one position to another. No any other forces are induced in the strip (13) by the overload current. Thus, the Examiner believes that claim 1 reads on Hsieh reference.

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Regarding the Applicant's position that said strip (13) is being repositioned instead of being changed in shape, the Examiner would like to direct the Applicant's attention to the fact that because said strip (13) is overlapping a support (11), it changes shape from straight to bent (inclined) upon moving from one position to another as depicted on Fig. 1 and 2.

Regarding the Applicant's position that "Hsieh does not disclose a first and a second electrodes (12, 12') that are plugs", please note that no such limitations have been presented in claims 1-5, but only in claim 6 which had been rejected under 35 USC 103.

Regarding the Applicant's position directed to the assertion that combination of references applied in 35 USC 103 rejection of claims 6 and 7 is improper, the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. *In re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, 163 USPQ 545 (CCPA) 1969. Also, as decided in *In re O'Farrel*, 7 USPQ 2d, 1673-1681, Fed. Cir. 1988, obviousness does not require absolute predictability of success. Indeed, for many inventions that seem quite obvious, there is no absolute predictability of success until the invention is reduced to practice. There is always at least a possibility of unexpected results, that would then provide an objective basis for showing that the invention, although apparently obvious, was in law nonobvious. *In re Merck & Co.*, 800 F.2d at 1098, 231

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USPQ at 380; Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 1461, 221 USPQ 481, 488 (Fed. Cir. 1984); In re Papesch, 315 F.2d 381, 386-387, 137 USPQ 43, 47-48 (CCPA 1963). For obviousness under 35 U.S.C. 103, all that is required is a reasonable expectation of success. In re Longi, 759 F.2d 887, 897, 225 USPQ 645, 651-652 (Fed. Cir. 1985); In re Clinton, 527 F.2d 1226, 1228, 188 USPQ 365, 367 (CCPA 1976).

### Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 703-308-7824. The examiner can normally be reached on 9:30-6:00, Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mr. Darren Schuberg can be reached on 703-308-4815. The fax phone numbers for

the organization where this application or proceeding is assigned are 703-305-3431 for regular

communications and 703-305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-308-1782.

Anatoly Vortman Primary Examiner Art Unit 2835

A.V. June 13, 2003

A. Voll